AF/3627
18/Appeal Brief
6-26-02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re patent application of: M. Bright et al.

Docket No.: BU9-99-021 (01240134AA)

Serial No.: 09/303,368

Group Art Unit: ~~2167~~ 3627

Filed: April 30, 1999

Examiner: O'Connor, Gerald J.

For: **PRE-PROCESS FOR INBOUND SALES ORDER REQUESTS WITH LINK TO A THIRD PARTY AVAILABLE TO PROMISE SYSTEM**

Assistant Commissioner of Patents and Trademarks
Washington, D.C. 20231

BRIEF OF APPELLANTS UNDER 37 C.F.R. §1.192 (c)

Sir:

Appellants have filed a timely Notice of Appeal from the final office action of the Primary Examiner in finally rejecting claims 1, 3-4, 6, 8-9, 11, 13-24 in this application. Please charge International Business Machine Corporation's Account No. 09-0456 in the amount of $300.00 (37 C.F.R. §1.17(f)) to cover the fee for filing this appeal brief. This appeal brief is being filed in triplicate pursuant to 37 C.F.R. §1.192(a).

REAL PARTY IN INTEREST

The real party in interest in this appeal is International Business Machine Corporation, assignee of the entire interest in the above-identified application.

RELATED APPEALS AND INTERFERENCES

The Appellants, their legal representatives and the assignee are not currently aware of any appeal that may directly affect or be indirectly affected by or have some bearing on the Board's decision in this appeal.

STATUS OF THE CLAIMS

Claims 1, 3-4, 6, 8-9, 11, and 13-24 are currently pending. Claims 2, 5, 7, 10, and 12 were canceled during prosecution of the application without prejudice or disclaimer. Claims 1, 3-4, 6, 8-9, 11, and 13-24 stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,058,373 to Blinn et al. (Blinn). Claims 1, 3-4, 6, 8-9, 11, and 13-24 also stand rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,023,683 to Johnson, et al. (Johnson).[1]

The rejections of claims 1, 3-4, 6, 8-9, 11, and 13-24 under §103(a) over Blinn or alternatively Johnson are now the subject of the present appeal. The claims in issue are attached in appendix "A".

STATUS OF AMENDMENTS

All amendments to the application have been entered.

SUMMARY OF THE INVENTION

The Appellants have found that the use of a computer implemented Order Interceptor of the present invention that preprocesses Electronic Sales Orders (ESOs) before being sent to a sales order system provides many advantages over the prior art systems. In general, the preprocessing of information with the Order Interceptor prior to the submission of the actual sales order to an order processing system allows for an asynchronous availability check with any third party Available to Promise (ATP) packages, which may be running on a remote server. This asynchronous check with an ATP planning and forecast engine determines if material is available for a given quantity or delivery date; the result of which is to determine key information about the sales order, e.g., the sales organization or distribution channels involved in providing the material or items, prior to the actual processing of the order. Based on the ATP result, the Order Interceptor is capable of modifying the ESO or even split the ESO into multiple requests. For example, if several line items are supplied by different delivery plants with different criteria, the

[1] Claims 1, 3-4, 6, 8-9, 11, and 13-24 were also rejected under 35 U.S.C. 102(e). This rejection has been withdrawn in response to the August 3, 2001 Amendment. (See, September 19, 2001 Office Action)

ESO can be divided into multiple ESOs. This clearly provides efficiencies to the sales order system, compared to prior art systems.

In addition to supporting third party availability checks and splitting ESOs, the pre-processing Order Interceptor of the present invention provides a robust set of business rules that allows a supplier to configure how a request is managed. Business rules are pre-negotiated conditions that may provide substantial control over how sales orders are to be accepted and conformed. The use of these rules thus prevents subsequent problems in deliveries and keeps parties in conformance with agreements. This also provides efficiency to the ordering process.

The Order Interceptor of the present invention also provides for a Workbench component that allows any ESOs held for review to be viewed or edited. This is all performed prior to the processing of the order. By way of embodiment, the Workbench provides a customer purchase order view of the ESO that looks, feels and behaves like actual order entry screens. In addition to displaying the ESO, the Workbench displays messages generated from the order interceptor pre-processor describing why the ESO was held for review. The Workbench branches to an appropriate data correction screen and may present specific segments in the ESO for correction. This process continues until all messages are corrected or marked reviewed. The supplier can then decide to accept the request, reject the request, or accept individual line items. If the request is ultimately rejected, another feature of the Order Interceptor generates a reject acknowledgment without forwarding the ESO to the order processing system. In other words, the order will be stopped prior to the processing thereof, saving time and expense.

To achieve these goals, the Order Interceptor 201 (as shown in Figure 2) includes a translator 202 for translating from any number of electronic data interchange (EDI) transmission 203 formats to a standard internal format. The Order Interceptor proceeds to examine the ESO by customer specific business rules contained in the business rules database 210. For example, depending upon the originating customer, the ESO can be configured for manual review, or for other customers, checks are made for minimum order quantities, still others for automating routing. If the Order Interceptor determines that an ATP check is needed, the Order Interceptor interfaces with a ATP system 204 (which may be a third party package on a remote server) to collect information from a data translator 205. The ATP serves as a planning and forecast engine

that provides basic status such as material availability and delivery dates. The ATP runs independently of the order processing system.

If the Order Interceptor 201 determines that any of the business rules contained in the business rules database 210 fail, or there is any other processing problems to this point, the Order Interceptor interfaces with pseudo-sales order workbench 206, another feature of the present invention. This workbench function allows for manual review, modification, and/or corrections to the customer's order data within the internal format. The Workbench also permits field modifications and functions such as rejecting the customer's order. If a rejection is warranted, the Order Interceptor interfaces with the reject acknowledgement system 207, another feature of the present invention. The rejection is transmitted back to the customer in an appropriate format for that customer. The rejection acknowledgement system may also reject customer forecast queries. When the Order Interceptor completes its preprocessing, one or more ESOs are generated and routed to an order processing system by router 208. The order processing systems may be systems such as IBM's OEMLS system 211 or the SAP AG Corporation order processing system 212. Thus, in essence, the Order Interceptor is more than a preprocessor for an order; it is a system which is capable of providing added value to the ordering processes by screening orders, managing customers and providing pertinent information to an ordering processing system.

ISSUES

1. Whether the subject matter of claims 1, 3-4, 6, 8-9, 11, and 13-24 is obvious in view of the level of ordinary skill in the art under 35 U.S.C. §103(a) as evidenced by Blinn.

2. Whether the subject matter of claims 1, 3-4, 6, 8-9, 11, and 13-24 is obvious in view of the level of ordinary skill in the art under 35 U.S.C. §103(a) as evidenced by Johnson.

GROUPING OF CLAIMS

The rejected claims stand or fall together.

ARGUMENT

The present invention provides for an integrated system for interception and pre-processing of electronic commerce requests such as Electronic Sales Orders (ESOs) or Electronic Purchase Orders (EPOs) in order to validate certain criteria before routing the same, altered, or additional ESOs or EPOs to an order processing system. The Order Interceptor of the present invention receives an order from a customer and proceeds to apply business criteria to the ESO in order to automatically check the ESO and provide corrections or alterations (if necessary) based upon the particular customer that is placing the order. The Order Interceptor is able to asynchronously communicate with third party Available to Promise (ATP) system to determine if material is available for a given quantity and delivery date. Based on this information, the Order Interceptor can automatically verify the integrity of the ESO or alter the ESO fields based on business criteria previously established for the submitting customer, including generating multiple ESOs as necessary based upon third party ATP information. If the ESO, as submitted, contains errors that are automatically uncorrectable, a workbench feature of this present invention permits manual intervention to adjust items and fields. If the ESO is ultimately rejected, another feature of this invention automatically returns a reject notice to the originating customer. All of this occurs prior to any one or more ESOs being routed to an order processing system. In essence, these features and functions are collectively called a pre-processor that performs the unique pre-processing as discussed above. The pre-processor and pre-processing are independent of the sales order system and provide distinctly valuable functions. They are not merely a separation of sales order functions, as suggested by the Examiner.

The present invention characterizes its novel features, as previously described, as "pre-processing" but does not contend that the "pre-processing" is equivalent to either Blinn or Johnson or a subset of either of these references. The present invention has unique and patentable features that function as a pre-cursor to any actual order placement. The "pre-processing" as disclosed by the Appellants is, in itself, a method and system that provides utility different from

the cited prior art references either separately or in combination. Given the intrinsic nature of those functions and the goals that they provide (i.e., the pre-processor is meant to automatically act upon an entire "order" according to pre-defined business rules prior to the actual subsequent "order" placement) it is natural to characterize them collectively as a "pre-processor" which accurately contrasts its relationship to a subsequent "processor" (i.e., order placement system). It does not imply a simple separation of already existing capabilities or functions into a "pre-processor" and "processor".

35 U.S. C. §103(a) Rejection over
U.S. Patent No 6,058,373 to Blinn

In rejecting the present claims, the Examiner maintains that (a) the steps/functions of Blinn, et al. can be split into two separate processing systems: a "pre-processor" and a "processor" and (b) the claimed invention performs exactly the same steps/functions of the "pre-processor" of the Blinn, et al. On this basis, the Examiner asserted that it would have been obvious to split the system of Blinn, et al. in order to improve overall system performance/ throughput because the claimed invention is merely "constructing a formerly integral structure in various elements" which requires only routine skill in the art. Also, in rejecting the claimed invention, the Examiner, in reference to Blinn, merely points to flow charts of Figures 13 and 15 and argues that all the elements and steps of the present invention are disclosed and that splitting the processing steps/functions into a "pre-processor" and "processor" would have been obvious to one skilled in the art. No specific citation of Blinn features to the elements of the claimed invention is ever made by the Examiner. As discussed above, the present invention, in contrast, amounts to much more than just splitting processing into a "pre-processor" and "processor". Accordingly, Appellants respectfully disagree with the Examiner.

Appellants have reviewed Figures 13 and 15 of Blinn and are not able to locate the features and capabilities of the present invention, nor are they found in the disclosure or any other portion of Blinn. Blinn is directed to processing on-line electronic sales orders utilizing an order with multiple key-value pairs which are not organized with a predetermined format, and which allows a merchant to add new key-value pairs without modifying the software instructions to the existing order processing component. Figure 13 and 15 merely show flow charts outlining the

processing steps of Blinn, none of which even remotely equate to the pre-processing of the present invention. Specifically,

> FIG 13. Illustrates a flow chart of the sequence of states which occur when a consumer accesses the electronic merchandising system 100. Beginning in a start state 1300, the present invention proceeds to state 1302 where the consumer directs his consumer browser 110 to access the electronic merchandising system 100. Proceeding to state 1304, the consumer views the virtual store displayed by the dynamic page generator 120.
>
> In state 1304, the virtual store offers the consumer a number of options. For instance, the consumer can navigate about the virtual store, view different sales departments, obtain information about products offered for sale, select desired items, view a shopping cart of selected items and can purchase selected items. The various options are represented with buttons, menus, or other user interface inputs which contain hyperlinks.

In the remaining steps, the user can view items, display product information, purchase the order, etc. Figure 15 further outlines the uses of key-pairs and merchant/shopper information stages, etc. As can be seen, Blinn is concerned with Browser on-line consumer shopping. On-line shopping is intensively manual and always dependent on a person. There is no disclosure, whatsoever, of a pre-processing of orders, as defined in the present invention, prior to the processing thereof.

The present invention provides much more than disclosed or reasonably suggested in the Blinn reference. The present invention is directed for use between business or trading partners (page 2, 12-17) whereby known relationships are established for rules of trading (page 6, ll. 14-23). These business relations routinely expect repetitive automatic processing to occur based on these business rules. In Just in Time relations, schedules, timing, and availability are critical and largely automated. So, when substantial orders are placed, the goal is to achieve successful order fulfillment automatically, with minimal human intervention. Checks and cross-checks are valuable. Only when there is a problem that cannot be handled automatically, the present invention presents the problem(s) for manual intervention.

The present invention accomplishes these goals by providing business rules for automatic processing of ESOs and, when necessary, accesses an interface to third party Available to Promise (ATP) systems for forecast delivery and availability information in order to validate the ESO and if necessary to modify the ESO including creating multiple new ESOs. The present invention also permits a rejection notice by a reject acknowledgement system 207 to be returned to a business-trading partner if any part of the ESO cannot be adequately resolved. Additionally, if manual intervention is ultimately required, a workbench tool 206 is provided by the present invention so that the nature of the rule violations or fault is easily shown for manual correction purposes. It is important that any order is as accurate as possible according to business rules and any forecast information. All of this activity occurs prior to the any ESO being routed by a router 208 to an order processing system such as SAP 212 or OEMLS 211 (Figure 2.) The preferred embodiment, as disclosed, uses the SAP environment as an implementation example, although a SAP environment is not required. Note, however, that the router can route pre-processed ESOs to order processing systems including other sales order systems. None of these functions are shown in Blinn in either Figure 13 or 15 and no reference to these functions are disclosed in the specification.

Specifically, Blinn does not show or suggest nor is than any motivation for providing (i) an interface to an Available to Promise system for availability checking is disclosed as in claim 1, 16 and 21; (ii) business rules or criteria for trading partners are disclosed by Blinn as recited in claim 2, 3, 8, 17, and 22; (iii) means of correction of orders are disclosed as recited in claim 7; (iv) a method or system to detect errors and correct an ESO is disclosed as in claim 3, 4, 6, 7, 17, 18, 22, 23 and 24; and (v) a method or system to reject a sales order and returning an indication that a portion of an order has been rejected as recited in claims 8, 9, and 19. Also, all of these features and functions of the present invention occur prior to any actual order is placed with a sales order system. This is characterized as pre-processing the order, and never actually fills an order, which is the function of the Blinn invention. Blinn gives no concern to ascertaining material availability, forecasts, or building an error free order (or conversion to multiple orders). This, in contrast, is one of the primary results and functions of the claimed invention.

By this end, Blinn does not disclose the features of the present invention within the Blinn order processing system as stated in several replies to office actions. No attempt by Blinn is ever considered to analyze an order for completeness and correctness according to established business rules prior to actually posting an order. These functions are what have been termed as pre-processing by the present invention. Submitting an order is often a substantial commitment in the business world (according to agreements and conditions) with possible negative ramifications when errors occur. Orders that are submitted in the best possible form and content as provided by the present invention help avoid business disruptions and entanglements.

Appellants submit that the use of Blinn, et al. (i) would not result in the claimed invention; (ii) would not have been obvious to one skilled in the art to modify the reference to include the features of the present invention; and (iii) in any event, such features are not present in this reference.

35 U.S. C. §103(a) Rejection over
U.S. Patent No. 6,023,683 to Johnson

In rejecting the claimed invention over the Johnson reference, the Examiner asserted that:

> Johnson, et al. clearly anticipates all of the substantive elements of the instant invention, except that the system of Johnson is an integral, unitary system, performing all necessary processing steps/functions, whereas the system contemplated by the instant invention, while performing exactly the same steps/functions overall, merely splits the various processing.

Appellants disagree with the Examiner's general assertion that Johnson anticipates all of the substantive elements of the instant invention.

Again many of the features of the present invention are not disclosed by Johnson. Johnson relies extensively on human manual interaction to search catalog databases and to *subsequently build an order*. Johnson does not teach intercepting or receiving a "completed" order submission and checking for portions of the sales order that can be satisfied as recited by claim 1 of the present invention or, for example, automatically checking and processing the order against pre-existing business rules as recited in claims 3, 8, 17, and 22. Nor does Johnson teach

automatically correcting the order against business rules as recited in claim 6. Johnson also does not disclose a means for automatically detecting errors, and providing a means for editing, or updating an order submission, as does the present invention in claims 3, 4, 6, 8, 11, 17, 18, and 22. The present invention also conditionally decides whether to post an order based upon availability as in claim 21. Johnson does not show or suggest this capability. Thus, as with Blinn, Johnson fails to disclose or even remotely suggest all the features of the claimed invention.

In contrast, Johnson is directed to providing an "ability to search multiple catalogs from different suppliers" (page 4, lines 46-47). More specifically, Johnson is directed to an electronic sourcing method and system that provides *a user* with the capability of searching a database containing data (including product/vendor identification, and other product information) relating to items available from at least two vendor product catalogs. It also has the capability of transferring the product information for desired catalog items obtained as a result of the search to a requisition/purchasing system for use in generating a requisition including entries for the desired catalog items.

Johnson is also capable of creating an order list including desired catalog items available from vendor product catalogs as a result of such a database search. To provide these functions, Johnson shows a computer that maintains a catalog database including product information relating to catalog items available from vendor product catalogs, and a means for generating a requisition including at least one requisitioned item. Information at least partially identifying an item desired to be requisitioned is entered *manually by a user*, and utilized for searching the database for catalog items matching that information and for selecting at least one item as a result of the search. Data identifying the selected catalog items are communicated to the requisition building module, which generates a requisition including entries for items corresponding to the selected catalog items. Additionally, Johnson may check the availability of one or more inventory locations of the corresponding catalog items (See, cols. 2 and 3). All of these functions are *interactive with a user* (e.g., col. 6, ll. 54-57, col. 7, ll. 44-50, col. 8, ll. 33-39, col.12, ll.4-12, col. 12, ll. 48-53, etc.). None of these features, as discussed above, are even remotely similar to those of the claimed invention.

It is also well-settled law that when the Examiner asserts that there is an explicit or implicit teaching or suggestion in the prior art, the Examiner must indicate where such a teaching or suggestion appears in the reference.[2] In the present reference, not once did the Examiner cite a passage that relates to the specific limitations as recited in the claimed invention. In fact, Appellants argue that no such limitations exist in the Johnson reference.

Further Arguments and Remarks

The Examiner also cites *Nerwin v. Erlichman*[3] to support the contention that:

> ...it would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the system of Johnson or Blinn, so as to split the processing steps/functions into separate modules or processing systems, a "pre-processor" and a "processor" in order to improve overall system performance/throughput, since it is well settled that constructing a formerly integral structure in various elements involves only routine skill in the art. (See Advisory Action dated April 16, 2002).

Appellants disagree with the contention.

First, simply splitting the inventions of either Blinn or Johnson would not provide the features of the present invention. Neither Blinn nor Johnson teaches the features of the present invention therefore splitting them will not and can not provide these features.

The present invention characterizes its novel features, as previously described, as "pre-processing" but does not contend that the "pre-processing" is equivalent to either Blinn or Johnson or a subset of either in combination. The present invention has unique and patentable distinct features as previously summarized that function as a pre-cursor to any actual final order placement. The "pre-processing" (i.e., Order Interceptor) as disclosed by the Appellants is in itself a method and system that provides utility different from the cited prior art references either separately or in combination. Given the intrinsic nature of those functions and the goals that they

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[2] *In re Yates, 663 F.2d 1054, 211 USPQ 1149, 1151 (CCPA 1981)*
[3] *Nerwin v. Erlichman, 168 USPQ 177, 179.*

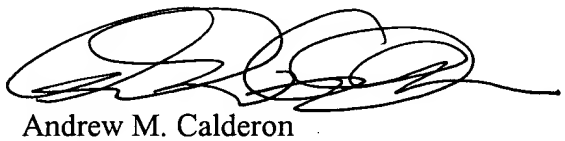
provide (i.e., the pre-processor is meant to automatically act upon an entire "order" according to pre-defined business rules prior to the actual subsequent "order" placement) it is natural to characterize them collectively as a "pre-processor" which accurately contrasts its relationship to a subsequent "processor" (i.e., order placement system). It does not imply a simple separation of already existing capabilities or functions into a "pre-processor" and "processor".

As already discussed, the Examiner has simply asserted very broadly that all the elements of the claimed invention are anticipated by the references. The Appellants strongly disagree and assert that the features disclosed are not taught or suggested in either reference, alone or in combination, and thus contend that Johnson and Blinn in combination, or alone, do not teach or suggest the many aspects of the claimed invention.

CONCLUSION

In summary, neither the Blinn nor the Johnson references teach or suggest the features of the claimed invention. Moreover, the Examiner's statement of rejection fails to properly point out the reasons for the rejection and fails to provide a prima facie case of obviousness. Accordingly, Blinn or Johnson neither anticipates the claimed invention nor does a combination of the Blinn and Johnson references provide evidence that would support a conclusion of obviousness under 35 U.S.C. §103(a). Therefore, it is respectfully submitted that the rejections of claims 1, 3-4, 6, 8-9, 11, and 13-24 are in error and reversal thereof is respectfully requested.

Respectfully submitted,



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APPENDIX "A"

CLAIMS

1. A system for pre-processing orders before they are transmitted to an order processing system, comprising:

an order interceptor receiving and pre-processing electronic sales order data prior to transmitting to the order processing system;

an interface system receiving the electronic sales order data from the order interceptor and performing an availability check, wherein the availability check determines the portions of the electronic sales order data that can be satisfied; and

means for transmitting at least a portion of the electronic sales order data to the order processing system for order processing.

3. The system of claim 1, wherein the order interceptor comprises:

means for translating the electronic sales order data to an internal format of the order interceptor;

means for determining if an availability check is required;

means for transmitting at least a portion of the electronic sales order data;

means for determining if there are any processing problems associated with the electronic sales order data; and

means for processing the electronic sales order data in accordance with business rules.

4. The system of claim 1, further comprising a workbench receiving electronic sales order data that contains errors or is incomplete.

6. The system of claim 4, wherein the workbench comprises:

a) means for displaying electronic sales order data that contains errors or is incomplete;

b) means for displaying error messages associated with the electronic sales order data of step a); and

c) means for correcting, editing, and updating the at least one database containing electronic sales order data.

8. The system of claim 6, wherein the workbench further comprises:

means for displaying the status of the electronic sales order data;

means for determining if the configuration rules are satisfied; and

means for indicating to the order interceptor that at least a portion of the electronic order data is rejected.

9. The system of claim 1, further comprising a reject acknowledgment system receiving an indication from the order interceptor that at least a portion of the electronic sales order data has been rejected.

11. The system of claim 9, wherein the reject acknowledgment system comprises:

means for updating the at least one database to indicate the portions of the electronic order data that have been rejected.

13. The system of claim 11, wherein the reject acknowledgment system further comprises:

means for determining if the electronic sales order data was received via a transmission from the World Wide Web; and

means for updating the at least one database in either an ESO format or an SAP format.

14. The system of claim 1, wherein the order interceptor receives the electronic sales order data in a standard Electronic Data Interchange (EDI) format.

15. The order interceptor system of claim 1, wherein the system is an SAP system.

16. A computer implemented method of processing electronic sales order data before it is transmitted to an order processing system, comprising the steps of:

receiving electronic sales order data for pre-processing the electronic sales order data prior to being transmitted to the order processing system;

translating the electronic sales order data to an internal format;

transmitting the electronic sales order data to an interface system,

wherein the interface system performs an availability check to determine what portion of the electronic sales order data that can be satisfied; and

if the availability check indication is to transmit, transmitting the designated portions of the internal format data to the order processing system.

17. The computer implemented method of claim 16, further comprising the steps of:

a) processing the electronic sales order data in accordance with business rules;

b) determining if there are any processing problems associated with the electronic sales order data; and

c) if there are processing problems in step b), transmitting an electronic message to at least one user indicating that the electronic sales order data contains errors or is incomplete.

18. The computer implemented method of claim 17, further comprising the steps of:

enabling a user to correct the electronic sales order data; and

transmitting the corrected electronic sales order data to the order processing system.

19. The computer implemented method of claim 16, further comprising the steps of:

rejecting the electronic sales order data that cannot be filled; and

updating at least one database to indicate the portions of the electronic order data that have been rejected.

20. The computer implemented method of claim 16, wherein the electronic sales order data is in Electronic Data interchange format.

21. A computer program product comprising:

a computer usable medium having computer readable program code embodied in the medium for pre-processing orders before they are transmitted to an order processing system, the computer program product having:

first computer program code for receiving electronic sales order data;

second computer program code for translating the electronic sales order data to an internal format;

third computer program code for transmitting the electronic sales order data to an interface system, wherein the interface system performs an availability check to determine the portions of the order interceptor data that can be satisfied; and

fourth computer program code for determining if the availability check indication is to transmit at least a portion of the order interceptor data to the order processing system, and, if so, transmitting the designated portions of the electronic sales order data to the order processing system.

22. A computer program product of claim 21, further having:

fifth computer program code for processing the electronic sales order data in accordance with business rules;

sixth computer program code for determining if there are any processing problems associated with the electronic sales order data; and

seventh computer program code for providing an indication to at least one user that the electronic sales order data contains errors or is incomplete.

23. A computer program product of claim 22 further comprising:

eighth computer program code for enabling a user to correct the electronic sales order data; and

ninth computer program code for transmitting the corrected electronic sales order data to the order processing system.

24. A computer program product of claim 23 further comprising:

tenth computer program code rejecting the electronic sales order data that cannot be filled; and

eleventh computer program code for updating at least one database to indicate the portions of the electronic order data that have been rejected.